

WHAT IS CLAIMED IS:

1. An inkjet head comprising:

a plurality of flow passages each composed of
a nozzle to discharge ink and a pressure generating
5 chamber communicating to the nozzle;

a common ink chamber which supplies ink to each of
the flow passages; and

an actuator which expands/contracts a volume of
the pressure generating chamber,

10 wherein the physical properties of the ink and the
flow passage satisfy a relationship of $0.2 \leq \gamma^2/\omega^2 \leq$
1.0 ($\gamma = R/2M$, $\omega = \sqrt{K/M}$, where M is inertia of the ink
in the flow passage when the ink is charged in the flow
passage, and R is a viscosity resistance of the ink in
15 the flow passage).

2. An inkjet head according to claim 1,
wherein a fluid resistor is intervened between the
pressure chamber of the flow passage and the common ink
chamber.

20 3. An inkjet recording apparatus comprising:

a plurality of flow passages each composed of
a nozzle to discharge ink and a pressure generating
chamber communicating to the nozzle;

a common ink chamber which supplies ink to each of
25 the flow passages;

an actuator which expands/contracts a volume of
the pressure generating chamber; and

a drive signal generating portion which outputs a drive signal for continuously discharging a plurality of ink drops from the nozzle to the actuator,

wherein the physical properties of the ink and the flow passage satisfy a relationship of $0.2 \leq \gamma^2/\omega^2 \leq 1.0$ ($\gamma = R/2M$, $\omega = \sqrt{K/M}$, where M is inertia of the ink in the flow passage when the ink is charged in the flow passage, and R is a viscosity resistance of the ink in the flow passage).

4. An inkjet recording apparatus comprising:

a plurality of flow passages each composed of a nozzle to discharge ink and a pressure generating chamber communicating to the nozzle;

a common ink chamber which supplies ink to each of the flow passages;

a fluid resistor provided between the pressure generating chamber of the flow passage and the common ink chamber;

an actuator which expands/contracts a volume of the pressure generating chamber; and

a drive signal generating portion which outputs a drive signal for continuously discharging a plurality of ink drops from the nozzle to the actuator,

wherein the physical properties of the ink and the flow passage satisfy a relationship of $0.2 \leq \gamma^2/\omega^2 \leq 1.0$ ($\gamma = R/2M$, $\omega = \sqrt{K/M}$, where M is inertia of the ink in the flow passage when the ink is charged in the flow

passage, and R is a viscosity resistance of the ink in the flow passage).